

Egyptian Herbal Monograph

**Egyptian Drug Authority (EDA)
2024**



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Medicinal Plants Used in Egypt

Pelargonium sidoides DC.

بيلارجونيوم

1. Names & Synonyms (1)

Pelargonium sidoides DC.

Family: Geraniaceae.

Syns.: *Cortusina sidifolia* (Thunb.) Eckl. & Zeyh., *Geraniospermum sidifolium* (Thunb.) Kuntze, *Geranium sidifolium* Thunb.

Arabic name: Pelargonium بيلارجونيوم

English name: Pelargonium root (2), Geranium; South African geranium.

2. Parts used for medicinal purpose

Root (2-4).

3. Major chemical constituents

- **Highly oxygenated coumarins:** 7-Hydroxy-5,6-dimethoxycoumarin (umckalin), 5,6,7-trimethoxycoumarin, 5,6,7,8-tetramethoxycoumarin (artelin), 6,8-dihydroxy-5,7-dimethoxycoumarin (and their sulfooxy derivatives), esculin and scopoletin (5-8).
- **Phenolic acids:** Gallic acid and its methyl ester, and hydroxy-cinnamic acids (caffeic acid, *p*-coumaric acid).
- **Flavan-3-ols:** Catechin, oligomeric and polymeric proanthocyanidins (mainly with catechin and gallocatechin units).
- **Amino acids:** Adenosine 3',5'-cyclic monophosphate, guanosine-3',5'-cyclomonophosphate, and 1-methyl guanosine-3',5'-cyclomonophosphate (7).

4. Medicinal Uses (Indications) (2,4)

- Symptomatic treatment of upper respiratory tract infections including common cold, such as blocked or runny nose, sore throat and cough.

5. Herbal preparations correlated to medicinal use.

- 1- Liquid herbal extract ethanol 11-12% (2,4).
- 2- Dry herbal extract ethanol 11% (2).

Herbal preparations are in a pharmaceutical dosage form. The pharmaceutical form should be described by the pharmacopoeia full standard term.



6. **Posology and method of administration correlated to medicinal use (4)**

Preparation 1

Adults, elderly and children over 12 years: 2.5-7.5 mL daily in divided doses.

Children aged 6-12 years: 1.25–2.5 mL daily in divided doses.

Children aged 2-6 years: 0.6-1.25 mL daily in divided doses.

Preparation 2

Adults, elderly and children above 12 years: Single dose 20 mg, 3 times daily.

Children aged 6-12 years: Single dose 20 mg, 2 times daily.

Duration of use

If the symptoms persist longer than one week, a doctor or a pharmacist should be consulted.

Method of administration: Oral use (2,4).

7. **Contraindications**

Hypersensitivity to the active substance and to other plants of the same family (2).

8. **Special warnings and precautions for use (2)**

- If the symptoms worsen during the use of the medicinal product, a doctor or a pharmacist should be consulted.
- The use in children should be under medical supervision.
- In case signs of hepatotoxicity occur, the administration of the medicinal product should be stopped immediately and a medical doctor should be consulted.
- In case of liver disorders, a medical doctor should be consulted prior to use.

9. **Interactions with other medicinal products and other forms of interaction (2)**

None reported.

10. **Fertility, pregnancy and lactation (2)**

- Safety during pregnancy and lactation has not been established. In the absence of sufficient data, the use during pregnancy and lactation is not recommended.
- No fertility data available.



11. **Effects on ability to drive and use machines (2)**

No studies on the effect on the ability to drive and use machines have been performed.

12. **Undesirable effects (2,4)**

- Mild gastrointestinal complaints (diarrhea, epigastric discomfort, nausea or vomiting, dysphagia), mild nasal, gingival bleeding and allergic reactions have been reported.
- If other adverse reactions not mentioned above occur, a doctor or a pharmacist should be consulted.

13. **Overdose (2)**

No case of overdose has been reported.

14. **Relevant biological activities**

Not required as per Egyptian guidelines for registration of herbal medicines.

15. **Additional data**

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16. **Date of last revision**

17/04/2024



1	https://powo.science.kew.org
2	European Union herbal monograph on <i>Pelargonium sidoides</i> DC and/or <i>Pelargonium reniforme</i> Curt., radix EMA/HMPC/444244/2015 Committee on Herbal Medicinal Products (HMPC).
3	Edwards, S. E., Rocha, I. D. C., Williamson, E. M. and Heinrich, M. (2015). <i>Phytopharmacy: An Evidence-Based Guide to Herbal Medicinal Products</i> . 1 st edition. John Wiley & Sons, Ltd.
4	ESCOMP Monographs (2015). <i>Pelargonium</i> Root. European Scientific Cooperative on Phytotherapy. Edited by Roberta Hutchins and Simon Mills.
5	Alossaimi, M. A., Alzeer, M. A., Abdel Bar, F. M. and ElNaggar, M. H. (2022). <i>Pelargonium sidoides</i> root extract: Simultaneous HPLC separation, determination, and validation of selected biomolecules and evaluation of SARS-CoV-2 inhibitory activity. <i>Pharmaceuticals</i> , 15, 1184. https://doi.org/10.3390/ph15101184 .
6	Kayser, O. and Kolodziej, H. (1995). Highly oxygenated coumarins from <i>Pelargonium sidoides</i> . <i>Phytochemistry</i> , 39(5), 1181–1185. doi:10.1016/0031-9422(95)00166-5.
7	Mofokeng, M. M., Prinsloo, G., Araya, H. T., du Plooy, C. P., Sathekge, N. R., Amoo, S. O. and Steyn, J. M. (2020). Yield and metabolite production of <i>Pelargonium sidoides</i> DC. in response to irrigation and nitrogen management. <i>Metabolites</i> , 10(6):219. doi: 10.3390/metabo10060219.
8	Yu, S. M., Kim, S. J., Yoon, Y. C., Kim, J. H. (2021). Development and application of a chemical profiling method for the assessment of the quality and consistency of the <i>Pelargonium sidoides</i> extract. <i>J. Anal. Sci. Technol.</i> 12, 46: https://doi.org/10.1186/s40543-021-00297-z .